

PAKCOOL® Thermally Conductive Pad TP-240-HT

Key Features and Benefits

- Thermal Conductivity: 4.0W/m·K
- Superior high and low temperature resistance, excellent weather resistance
- Superior chemical and mechanical stability
- Can effectively protect electrical components

Description

PAKCOOL® TP-240-HT thermally conductive pads are designed with high thermal conductivity and high strength to meet the diverse needs of thermal management. This series of products offers a wide range of thermal conductivities and is suitable for various applications. PAKCOOL® TP-240-HT is widely used in communication equipment for its extremely low oil permeability. Under moderate application pressure, PAKCOOL® TP-240-HT series production can fill the air gaps between components and their heat-sinks and enhance heat transfer. PAKCOOL® TP-240-HT is electrical insulation and has high thermal conductivity at pressures ranging from 20 to 100 psi (0.14 to 0.69 MPa). Products can be customized to meet customer's special requirements.

PAKCOOL® TP-240-HT is a hardness enhancement version of PAKCOOL® TP-240, with excellent mechanical strength and elasticity. PAKCOOL® TP-240-HT can be provided in standard size with different thicknesses, or die cutting according to customer requirements.

Applications:

- LED
- Power modules
- Integrated chips
- Automotive Electronics
- Communication devices
- Computers and Accessories

Technical Parameters

ColorGrayVisualThermal Conductivity (W/m·K)4.0ASTM D5470Thermal Impedance @20psi,0.5mm (K-in²/W)0.36ASTM D5470Thickness* (mm)0.3—5.0ASTM D374Density (g/cm³)3.30±0.05ASTM D792Hardness (Shore A) 70 ± 10 ASTM D2240Tensile Strength (Psi)≥150ASTM D412Volume Resistivity (Ω·cm)≥1.0×10¹³ASTM D257Dielectric Strength (kV/mm)≥10ASTM D149Dielectric Constant (100KHz)6.7ASTM D150UL Flammability Rating Continuous UseV-0UL 94	Typical Properties	ТР-240-НТ	Test Methods
(W/m·K) Thermal Impedance @20psi,0.5mm (K-in²/W) Thickness* (mm) Density (g/cm³) Hardness (Shore A) Tensile Strength (Psi) Volume Resistivity (Ω·cm) Dielectric Strength (kV/mm) Dielectric Constant (100KHz) UL Flammability Rating Continuous Use	Color	Gray	Visual
@20psi,0.5mm (K-in²/W)0.36ASTM D5470Thickness* (mm)0.3—5.0ASTM D374Density (g/cm³) 3.30 ± 0.05 ASTM D792Hardness (Shore A) 70 ± 10 ASTM D2240Tensile Strength (Psi) $\geqslant 150$ ASTM D412Volume Resistivity 	·	4.0	
Density (g/cm³) 3.30 ± 0.05 ASTM D792Hardness (Shore A) 70 ± 10 ASTM D2240Tensile Strength (Psi) $\geqslant 150$ ASTM D412Volume Resistivity (Ω·cm) $\geqslant 1.0\times10^{13}$ ASTM D257Dielectric Strength (kV/mm) $\geqslant 10$ ASTM D149Dielectric Constant (100KHz) 6.7 ASTM D150UL Flammability RatingV-0UL 94Continuous Use	@20psi,0.5mm	0.36	
Hardness (Shore A) 70 ± 10 ASTM D2240 Tensile Strength (Psi) ≥150 ASTM D412 Volume Resistivity (Ω·cm) ≥1.0×10 ¹³ ASTM D257 Dielectric Strength (kV/mm) ≥10 ASTM D149 Dielectric Constant (100KHz) 6.7 ASTM D150 UL Flammability Rating V-0 UL 94 Continuous Use	Thickness* (mm)	0.3—5.0	ASTM D374
Hardness (Shore A) 70 ± 10 D2240Tensile Strength (Psi) $\geqslant 150$ ASTM D412Volume Resistivity (Ω·cm) $\geqslant 1.0\times10^{13}$ ASTM D257Dielectric Strength (kV/mm) $\geqslant 10$ ASTM D149Dielectric Constant (100KHz) 6.7 ASTM D150UL Flammability RatingV-0UL 94Continuous Use	Density (g/cm ³)	3.30±0.05	ASTM D792
Volume Resistivity ($\Omega \cdot cm$) $\geq 1.0 \times 10^{13}$ ASTM D257 Dielectric Strength (kV/mm) ≥ 10 ASTM D149 Dielectric Constant (100KHz) 6.7 ASTM D150 UL Flammability Rating V-0 UL 94 Continuous Use V-0 UL 94	Hardness (Shore A)	70±10	
(Ω·cm) Dielectric Strength (kV/mm) Dielectric Constant (100KHz) UL Flammability Rating Continuous Use ≥1.0×10 ¹³ ASTM D257 ASTM D149 ASTM D149 LE Plant D150 UL 94	Tensile Strength (Psi)	≥150	ASTM D412
(kV/mm) Dielectric Constant (100KHz) UL Flammability Rating Continuous Use	·	$\geq 1.0 \times 10^{13}$	ASTM D257
(100KHz) UL Flammability Rating Continuous Use 6.7 ASTM D150 UL 94		≥10	ASTM D149
Rating V-0 UL 94 Continuous Use		6.7	ASTM D150
Continuous Use	·	V-0	UL 94
Temperature ($^{\circ}$ C)		-40 ~ +200	

*Standard Thickness (mm): 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5

Note: Data is for guidance only and should not be used as product specifications.

Configuration:

- Sheet form or die-cut form
- without pressure sensitive adhesive
- Standard dimension for sheet is 200mm × 400mm
- Custom dimensions are available

Storage:

- Store in a cool, dry place out of direct sunlight
- Suggest the shelf-time not more than 24 months

The data of this specification are obtained under laboratory conditions. However, because of the difference of use environment, process and so on, it can not guarantee the correctness and applicability of the product in some usage and use. When using, be sure to test to confirm the product suitable for your purpose. If you have any problems in using this product, please contact our technical department. We will do our best to help you.